UNDERSTANDING PROLOG EVALUATION

find ([X | _] , X)
find ([Y | L] , X) :- find (L,X)

GOAL → find ([1,2,3] , 2)

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find([X | _] , X)
GOAL → find ([1,2,3] , 2)

X = 1 ; _ = [2,3] ; X = 2   FALSE

find([Y|L] , X) :- find (L,X)
GOAL → find ([1,2,3] , 2)

Y= 1 ; L = [2,3] ; X = 2 TRUE → Evaluate the body

find (L,X)
NEW GOAL → find ([2,3] , 2)

find ([X | _] , X)
GOAL → find ([2,3] , 2)

X = 2 ; _ = 3 ; X = 2 TRUE! GOAL SATISFIED.

END X = 2